

ABSTRACT OF THE DISCLOSURE

An object of the present invention is to provide an electromagnetic wave absorber which is excellent in the electromagnetic wave absorbing characteristics in the high
5 frequency range above 1 GHz, and to provide a method of manufacturing the electromagnetic wave absorber and appliances using the electromagnetic wave absorber.

An electromagnetic wave absorber and a composite member in accordance with the present invention are
10 characterized by that magnetic metal grains are covered with ceramic above 20 volume % . Further, a method of manufacturing the electromagnetic absorber and the composite member is characterized by that composite magnetic particles, in which a plurality of magnetic metal
15 grains and ceramic are unified, are formed through the mechanical alloying method of a composite powder composed of magnetic metal powder and ceramic powder.

Further, the present invention exists in a semiconductor device, an optical sending module, an optical
20 receiving module, an optical sending and receiving module, an automatic tollgate preventing erroneous operation due to electromagnetic wave disturbance which use the electromagnetic wave absorber.